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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,866	09/29/2006	Dirk Schmidt	FMW-CT-PCT-US	8169

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EXAMINER	
CHAU, TERRY C	
ART UNIT	**PAPER NUMBER**
3655	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/594,866	SCHMIDT ET AL.	
	Examiner	Art Unit	
	TERRY CHAU	3655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/22/2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *9/26/2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This is the third office action on the merits for application 10/594,866 filed 9/26/2006.

Applicant's amendment to the specification filed 10/22/2009 has been entered. However, the amendment to the specification does not overcome the previous objection to the specification. See objection to the specification below.

Applicant's amendment to the claims filed 10/22/2009 has been entered. Claims 1-20 are currently pending.

The previous objection to the Oath or Declaration is withdrawn in view of the applicant's argument dated 10/22/2009.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statements (IDS) submitted on 4/10/2009 and 9/29/2006 have been considered by the examiner.

Specification

The disclosure is objected to because of the following informalities:

Regarding paragraph 0052, it remains unclear how the closing hook 4 is mounted using the bearing hole 20 as bearing hole 20 is on closing bar 5.

Appropriate correction is required.

Claim Objections

Claim 20 is objected to because of the following informalities:

Regarding claim 20, in line 6, the subject is missing in the clause beginning with "or a with a".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 7-12, 14, 15, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rockinger Spezialfabrik fur Anhaenger Kupplungen GmbH & Co (DE 94 01 718; herein referred to as Rockinger; see translation attached) in view of Heinzel (DE 43 04 857), Riskedal (US 6,874,599), and Elyakim (US 4,477,100).

Rockinger discloses:

Regarding claim 1:

A system for lubricating a closing mechanism on fifth wheels comprising:

a closing mechanism (53) arranged on the bottom side of a coupling plate, having

at least one closing hook (53b) or closing bar (53c) or a combination thereof, and

a grease reservoir (implicit reservoir forming the central lubricant supply connected to line 65; see page 9, paragraph 9-10), which is connected by a lubricating line (65) to the closing hook.

Regarding claim 1, Rockinger does not disclose that the closing hook is provided with a permanent coating and that the coating of the closing hook or closing bar or both is configured as a sliding coating.

Heinzel discloses a fifth wheel assembly (see figure 1) with a sliding coating (see see paragraph 11, page 3 of the machine translation) on the surfaces (29, 31) of the closing hook (18) and closing bar (16). The sliding coating, similar to the sliding coating on receptacle (34), may consist of a hard layer, a PTFE layer, and an optional adhesion layer (see paragraphs 2-8, page 3 of the translation).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a sliding coating on the closing hook and closing bar with the lubrication system Rockinger in view of the teachings of Heinzel that a sliding coating can drastically reduce lubricant consumption (see paragraph 12, page 1 of the machine translation).

Regarding claim 1, Rockinger and Heinzel do not explicitly disclose that the grease reservoir is a cartridge.

Riskedal discloses a lubrication system wherein the grease reservoir is a cartridge (see lines 27-29, column 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a grease cartridge in the lubrication system of Rockinger as modified by Heinzel in view of the teachings of Riskedal that cartridges provides a much cleaner operating environment for the driver or mechanic (see lines 55-57, column 2).

Regarding claim 1, Rockinger, Heinzel, and Riskedal do not disclose that the grease reservoir is arranged on the fifth wheel.

Elyakim discloses a grease reservoir (13) arranged on a fifth wheel (see figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to arrange the grease cartridge on the fifth wheel of Rockinger in order to simplify the regressing process (see line 57, column 2 to line 2, column 3). Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention that the placement of a reservoir on the fifth wheel reduces the length of the lubricating lines, thereby reducing manufacturing costs, chances that the lubricating lines entangle, and pressure drops within the lubricating lines.

Regarding claim 2, the grease cartridge is coordinated with the fifth wheel.

Regarding claim 3, it would have been obvious to one of ordinary skill in the art at the time the invention was made to place the grease cartridge underneath the fifth

wheel as the lubricating lines of Rockinger and Riskedal are already situated on the bottom of the fifth wheel.

Regarding claim 4, the grease cartridge of Riskedal has a drive unit (18).

Regarding claim 5, the drive unit of Riskedal comprises an electro-mechanical drive (18; Compressor 18 appears to be electro-mechanical compressor as it is control by electric controller 22. However, Official Notice is also taken that electric compressors are known in the art).

Regarding claim 7, the drive unit of Riskedal is connected to a variable control mechanism (20, 22).

Regarding claim 8, the variable control mechanism of Riskedal comprises an engine control mechanism (22; Applicant's argument on page 6 of the Remarks filed 4/10/2009 is noted. Controller 22 appears to implicitly control the drive unit as it would be pointless to operate the drive unit unless lubricant is being ejected. Also see lines 45-49, column 4 of Riskedal.).

Regarding claim 9, the variable control mechanism comprises a valve control mechanism (22).

Regarding claim 10, the valve control mechanism comprises a flow restriction valve (20) arranged in the lubricating line.

Regarding claims 11 and 12, the variable control mechanism of Riskedal communicates with a vehicle control unit/coupling control unit (22).

Regarding claim 14, at least one outer surface of the closing hook of Rockinger as modified by Heinzel is provided with the sliding coating, wherein the coating is in the form of the sliding coating.

Regarding claim 15, the sliding coating of Rockinger as modified by Heinzel consists of a multilayer system (a hard layer, a PTFE layer and an adhesion layer).

Regarding claims 17 and 18, the sliding coating of Heinzel has a layer thickness of 50 to 150 µm; the sliding coating has a layer thickness of 70 to 130 µm. (A prima facie case of obviousness exists due to an overlap of ranges. See paragraphs 7-9 and 14, page 2 of the translation. The thickness of the sliding coating ranges, which includes all three layers, ranges from 40 to 370 µm.)

Regarding claim 19, at least one outer surface of the closing bar of Rockinger as modified by Heinzel is provided with the sliding coating, wherein the coating is in the form of the sliding coating.

Regarding claim 20, see the rejections of claims 3, 5, 7-12.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rockinger (DE 94 01 718), Heinzel (DE 43 04 857), Riskedal (US 6,874,599) and Elyakim (US 4,477,100), as applied to claim 4 above, and further in view of Oloman et al. (US 5,968,325).

The teachings of Rockinger, Heinzel, Riskedal and Elyakim have been discussed above.

Regarding claim 6, Rockinger, Heinzel, Riskedal and Elyakim do not disclose that the drive unit comprises a chemical drive.

Oloman et al. discloses a grease cartridge with a chemical drive (see Field of Invention).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the drive unit of Rockinger as modified by Heinzel, Riskedal and Elyakim with the chemical drive unit of Oloman et al. because the two drive units were art-recognized equivalents for their usage in increasing fluid pressure in a cartridge/dispenser at the time the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rockinger (DE 94 01 718), Heinzel (DE 43 04 857), Riskedal (US 6,874,599) and Elyakim (US 4,477,100), as applied to claim 7, and further in view of Oloman et al. (US 5,968,325) and Schedratl et al, (SU 5,438,881).

The teachings of Rockinger, Heinzel, Riskedal and Elyakim have been discussed above.

Regarding claim 13, Rockinger, Heinzel, Riskedal and Elyakim do not disclose that the variable control mechanism communicates with a pressure sensor arranged on the coupling plate.

Oloman et al. discloses a variable control mechanism for a lubricant distributor in communication with a pressure sensor (see lines 6-9, column 4).

Schedratl et al. discloses a fifth wheel (1) with a pressure sensor (10) arranged on the coupling plate (2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to arrange a pressure sensor on the coupling plate of the lubricating system of Rockinger, as modified by Heinzel, Riskedal and Elyakim, in view of the teachings of Oloman et al. and Schedrat et al. that the pressure measurements may be used to influence and improve the driving behavior of the vehicle, especially the behavior of a lubricant distributor (see lines 6-9, column 4 of Oloman et al. and the abstract and lines 6-14, column 3 of Schedratl et al.).

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rockinger (DE 94 01 718), Heinzel (DE 43 04 857), Riskedal (US 6,874,599) and Elyakim (US 4,477,100), as applied to claim 15 above, and further in view of Sedlatschek et al. (US 3,844,729).

The teachings of Rockinger, Heinzel, Riskedal and Elyakim have been discussed above.

Heinzel also discloses that the multilayer system is composed of a first layer, which comprises an alloy with molybdenum and a second layer of PTFE applied to the first layer (see paragraph 4-9, page 2 of the translation).

Regarding claim 16, Rockinger, Heinzel, Riskedal and Elyakim do not disclose that the first layer comprises an iron alloy with nickel and molybdenum fraction.

Sedlatschek et al. discloses a wear-resistant surface for a metallic machine element that is applied by plasma spraying (see lines 10-28, column 3). The wear-resistant surface comprises an iron alloy with nickel and molybdenum fraction (see lines 45-65, column 2). Furthermore, PTFE may be applied to the wear-resistant surface (see lines 14-19, column 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include iron and nickel with molybdenum alloy in the multilayer system of the slide coating of Rockinger as modified by Heinzel in view of the teachings of Sedlatschet et al. that a wear surface made from such an alloy is capable of withstanding large stresses and friction, and provides for a sliding contact that may operate at elevated temperatures under conditions of inadequate lubrication (see lines 21-25, column 2).

Claims 1-4, 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rockinger (DE 94 01 718) in view of Heinzel (DE 43 04 857), and Schneider (DE 41 10 893).

The teachings of Rockinger and Heinzel have been discussed in the rejection of claim 1 above.

It is noted that applicant's argument that the central lubricant supply 32 of Schneider (DE 41 10 893) is merely a distributor on pages 7-8 of the Remarks filed 10/22/2009 is not persuasive as there does not appear to be a supply line connected to member 32 inputting lubricant into member 32.

Since Schneider discloses a grease cartridge (32) arranged on the fifth wheel, it would have been provide the lubrication system of Rockinger as modified by Heinzel with a grease cartridge arranged on the fifth wheel in view of the teachings of Schneider that centralized lubrication system 32 may be used to distribute lubricant to multiple parts of a fifth wheel including the closing hook by way of lubricating lines (see figure 1 and paragraph 5, page 3 of the translated specification submitted 4/10/2009). Member 32 is treated as a cartridge as there appears to be two screw holes in figure 1 for separating member 32 from the fifth wheel.

Regarding claims 2-4, the grease cartridge of Schneider is coordinated with the fifth wheel; the grease cartridge is arranged underneath the coupling plate; and the grease cartridge has a drive unit (implicit). Regarding claims 14 and 19, the closing hook and bar of Rockinger as modified by Heinzel is provided with a sliding coating.

Response to Arguments

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hattori et al. (US 4,572,537) discloses a coupler for connecting trailer to tractor with a lubricant reservoir 4 underneath the fifth wheel.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TERRY CHAU whose telephone number is (571)270-5926. The examiner can normally be reached on Monday-Friday 9:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Le can be reached on 571-272-7092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TERRY CHAU/
Examiner, Art Unit 3655

/David D. Le/
Primary Examiner, Art Unit 3655
02/10/2010